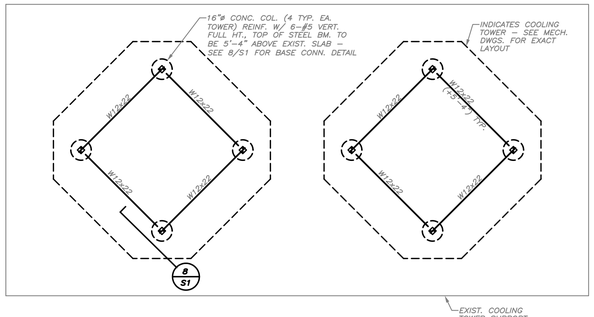
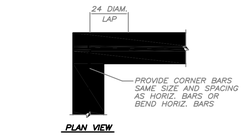


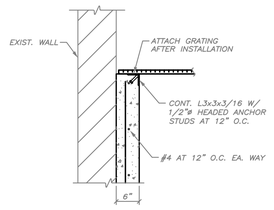
COOLING TOWER SUPPORT PLAN

1/4"=1'-0"

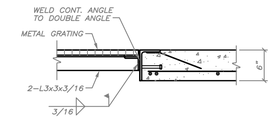
•SEE MECHANICAL DRAWINDS FOR EXACT LOCATION OF COOLING TOWERS.



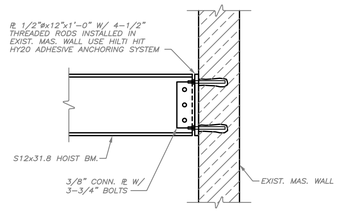
TYPICAL CONCRETE WALL CORNER DETAIL



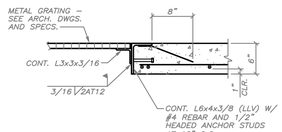
1 / S1 3/4"=1'-0"



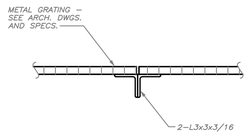
2 / S1 1"=1'-0"



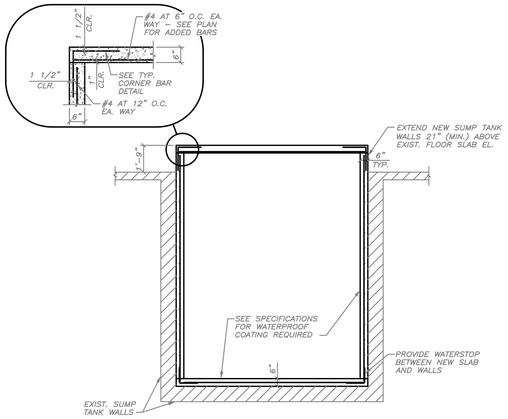
5 / S1 1"=1'-0"



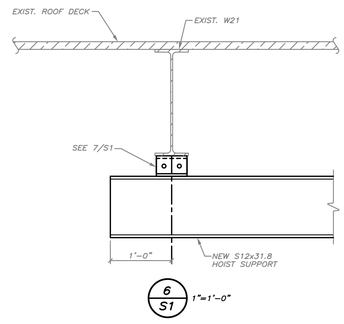
3 / S1 1"=1'-0"



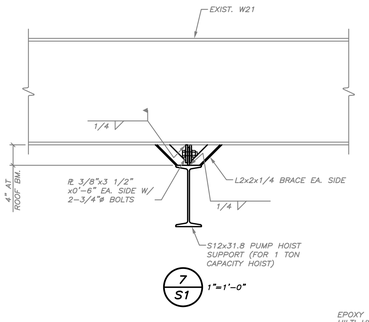
4 / S1 1 1/2"=1'-0"



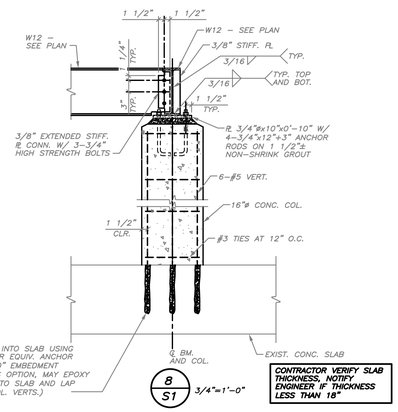
A - A



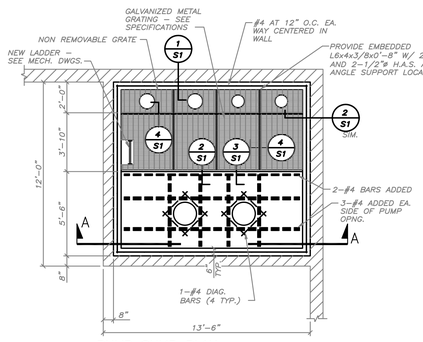
6 / S1 1"=1'-0"



7 / S1 1"=1'-0"



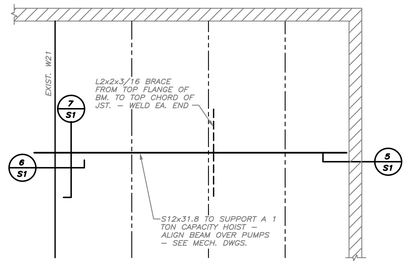
8 / S1 3/4"=1'-0"



PUMP SUMP PLAN

1/4"=1'-0"

•ALL REINFORCING STEEL SHALL BE EPOXY COATED.
•SEE TYPICAL CORNER BAR DETAIL.
•EXISTING CHILLER ROOM FLOOR ELEVATION = 100'-0".
•ALL STEEL AND GRATING SHALL BE GALVANIZED.
•GRATING AND SLAB DESIGNED FOR A MAXIMUM LIVE LOAD = 50 PSF.



EXISTING ROOF FRAMING PLAN

1/4"=1'-0"

GENERAL NOTES

1. Material and workmanship shall be in accordance with the requirements of "The International Building Code", 2003 Edition.
2. Contractor shall field measure and verify all existing conditions and dimensions at job site.
3. In case existing conditions or dimensions vary from those shown on drawing, Contractor shall notify the Engineer so proper adjustments can be made.

CONCRETE GENERAL NOTES

1. Material and workmanship shall be in accordance with the requirements of "Building Code Requirements for Reinforced Concrete" (ACI 318-02).
2. All concrete shall have a minimum compressive strength of 4,000 psi at the age of 28 days.
3. All cement used in concrete shall be Type I/II.
4. All concrete shall have a minimum cementitious materials content of 470 lbs. per cubic yard unless otherwise specified.
5. Calcium Chloride shall not be added to concrete.
6. Reinforcing bars shall conform to ASTM A-615, Grade 60 or ASTM A-706 except as noted. All stirrups and column ties may be Grade 40.
7. Bar bending details and placing drawings shall be in accordance with the "Manual of Standard Practice for Detailing Reinforced Concrete Structures" (ACI 315, latest edition).
8. Where welded reinforcement or deformed bar anchors are indicated on the drawings, steel specifications and welding shall conform to "Structural Welding Code - Reinforcing Steel". AWS D1.4 latest edition of The American Welding Society. Use ASTM A-706 where reinforcement is welded.
9. Provide bar supports and spacers to place all bars in proper location, and wire adequately at intersections to hold bars firmly in position while concrete is placed. Vertical dowels shall be supported in place prior to placing concrete.
10. Continuous bars shall lap and dowels shall project 36 bar diameters minimum unless shown otherwise on the drawings. Do not splice near maximum stress locations.
11. See mechanical drawings for additional openings, depressions, curbs, floor finishes, inserts and other embedded items.
12. All reinforcement for pump slab shall be epoxy coated in accordance with ASTM A775 specifications.
13. Reinforcing bar sizes shown are english designation. The bars may be furnished with the following equivalent metric markings:

English	#3	#4	#5	#6	#7	#8	#9	#10	#11
Metric	#10	#13	#16	#19	#22	#25	#29	#32	#36

STRUCTURAL STEEL GENERAL NOTES

1. All steel shall conform to the "Standard Specification for Structural Steel" ASTM Designation A572, Grade 50, or A992, latest edition, except where noted otherwise. Angles and plates shall conform to ASTM A36, A572, or A992. Square and rectangular hollow structural sections shall conform to ASTM A500, Grade B, Fy = 46 ksi.
2. All detailing, fabrication and erection shall conform to AISC "Specification for Structural Steel Buildings", and the AISC "Code of Standard Practice for Steel Buildings and Bridges", latest editions, and "Load and Resistance Factor Design Specification for Structural Steel Buildings" when applicable.
3. Beam connections not shown on details shall be designed by the steel fabricator in accordance with Tables I and II of Part 4 of the AISC "Manual of Steel Construction", Ninth Edition. Beam reactions not shown on plans or details shall be computed from the design loads shown on the drawings.
4. Shop connections shall be welded or bolted with 3/4" diameter A325 "Slip Critical" High Strength bolts.
5. Field connections shall be made with 3/4" diameter ASTM A325 High Strength bolts. Connections shall be bearing-type tightened to a "snug tight" condition unless noted as "slip critical".
6. High strength bolted connections shall conform to the "Specification for Structural Joints Using ASTM A325 or A490 Bolts", approved by Research Council on Riveted and Bolted Structural Joints of the Engineering Foundation, latest edition, endorsed by AISC. Fasteners, noted as "Slip Critical", shall be "Load Indicator Bolts" as manufactured by Lohr, Le Jeune, Bethlehem Steel, or approved equal and tightened per manufacturer's specifications.
7. Welded beam connections shall be in accordance with Table III or Table IV of Part 4 of the AISC "Manual of Steel Construction", latest edition.
8. All welding shall be done by certified welding operators and shall conform to "AWS Structural Welding Code" (AWS D1.1), latest edition.
9. Weld sizes not otherwise shown shall be minimum continuous 1/4 inch fillet welds, or equal to the thickness of the thinner material, whichever is less.
10. All welding shall be done with AWS A5.1 or A5.5 E70 XX electrodes.
11. All structural steel in the pump sump area shall be galvanized. See specifications.
12. All steel shall receive one shop coat of Tnemec 99 or Rust Oleum 1069 red metal primer.

CONSTRUCTION DOCUMENTS	08/12/2005
95 % SUBMITTAL	02/07/2005
Revisions	Date

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Drawing Title	STRUCTURAL DETAILS
Approved: Medical Center Director	-
Approved: Assistant Administrator, Engineering Department	-
Project Title	REPLACE COOLING TOWERS
Location	2121 NORTH AVENUE GRAND JUNCTION, CO 81505
Date	08/05/2005
Checked	TBS
Drawn	DJS
Project Number	575-05-103
Building Number	BUILDING NO. 9
Drawing Number	S1
	Dwg. 2 of 16

OFFICE OF FACILITIES MANAGEMENT
Department of Veterans Affairs